COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES & ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRNOMENTAL PROTECTION
DIVISION OF WATER

APPLICATION FOR PERMIT TO CONSTRUCT ACROSS OR ALONG A STREAM AND / OR WATER QUALITY CERTIFICATION

Chapter 151 of the Kentucky Revised Statutes requires approval from the Division of Water prior to any construction or other activity in or along a stream that could in any way obstruct flood flows or adversely impact water quality. *If the project involves work in a stream, such as bank stabilization, dredging or relocation, you will also need to obtain a 401 Water Quality Certification (WQC) from the Division of Water.* This completed form will be forwarded to the Water Quality Branch for WQC processing. The project may not start until all necessary approvals are received from the KDOW. For questions concerning the WQC process, contact the WQC section at 502/564-3410.

If the project will disturb more than 1 acre of soil, you will also need to complete the attached Notice of Intent for Storm Water Discharges, and return both forms to the Floodplain management Section of the KDOW. This general permit will require you to create an implement an erosion control plan for the project.

1. **OWNER:** CSX Transportation, Inc. (Paul Kurzanski) 19694A
   Give name of person(s), company, governmental unit, or other owner of proposed project.
   MAILING ADDRESS: 500 Water Street, J-225
   Jacksonville, FL 32202
   TELEPHONE #: 904-959-3101 **EMAIL:** paul_kurzanski@csx.com

2. **AGENT:** Geosyntec Consultants, Inc. (Duane Graves)
   Give name of person(s) submitting application, if other than owner.
   ADDRESS: 2240 Sutherland Ave, Suite 107
   Knoxville, TN 37919
   TELEPHONE #: 865-330-0037 **EMAIL:** dgraves@geosyntec.com

3. **ENGINEER:** John F. Beech **P.E. NUMBER:** 20023
   Contact Division of Water if waiver can be granted.
   TELEPHONE #: 678-202-9506 **EMAIL:** jbeech@geosyntec.com

4. **DESCRIPTION OF CONSTRUCTION:** See attached supplement for project description information.

5. **COUNTY:** Clark **NEAREST COMMUNITY:** Winchester, KY

6. **USGS QUAD NAME** Austerlitz **LATITUDE/LONGITUDE:** start (38.002835, -84.179362) end (38.004771, -84.18065)

7. **STREAM NAME:** Unnamed tributary to Strodes Creek **WATERSHED SIZE (in acres):** 7,541 (Strodes Creek – HUC # 05100102-030-010)

8. **LINEAR FEET OF STREAM IMPACTED:** ~65 ft (three selected locations along an ~800 ft stretch) of temporary disturbance. No permanent impacts to the stream are proposed.

9. **DIRECTIONS TO SITE:** The site is located within the city limits of Winchester, Kentucky (Figure 1). Access from Frankfort can be gained by traveling east on Interstate 64. Take Interstate 64 west for approximately 35 miles. At Exit 96A, take Paris Road south for approximately 0.75 mile. Turn right on to Magnolia Street. The approximate location of the clean-up sites is located near an open field between Magnolia Street and the railroad corridor.

10. **IS ANY PORTION OF THE REQUESTED PROJECT NOW COMPLETE?** ☐ Yes X No If yes, identify the completed portion on the drawings you submit and indicate the date activity was completed. DATE: _____

11. **ESTIMATED BEGIN CONSTRUCTION DATE:** October 2009

12. **ESTIMATED END CONSTRUCTION DATE:** October 2009

13. **HAS A PERMIT BEEN RECEIVED FROM THE US ARMY, CORPS of ENGINEERS?** ☐ Yes X No If yes, attach a copy of that permit. Pre-Construction Notification being submitted concurrent with this application.

14. **THE APPLICANT *MUST* ADDRESS PUBLIC NOTICE:**

(a) PUBLIC NOTICE HAS BEEN GIVEN FOR THIS PROPOSAL BY THE FOLLOWING MEANS:

____ **Public notice in newspaper having greatest circulation in area** (provide newspaper clipping or affidavit)

____ **Adjacent property owner(s) affidavits** (Contact Division of Water for requirements.)

(b) _x_ I REQUEST WAIVER OF PUBLIC NOTICE BECAUSE:

As described in the attached project description, no permanent impacts are proposed and no alterations to the existing flood conditions are proposed. The removal of sediment within the stream will have a negligible effect on this waterbody and will not result in an increase in flooding.

15. **I HAVE CONTACTED THE FOLLOWING CITY OR COUNTY OFFICIALS CONCERNING THIS PROJECT:**

The local floodplain coordinator is Judge Gary Epperson. A draft copy of this permit application has been forwarded to his office for review and signature.

Give name and title of person(s) contacted and provide copy of any approval city or county may have issued.

16. **LIST OF ATTACHMENTS:** See Below

List plans, profiles, or other drawings and data submitted. Attach a copy of a 7.5 minute USGS topographic map clearly showing the project location.

Supplemental Information Text, Figure 1: Site Location Map, Figure 2: Site Topographic Map, Figure 3: Sediment Removal Areas and Aerial Photograph, and FEMA Floodplain Insurance Rate Maps.

17. I, PK (owner) **CERTIFY THAT THE OWNER OWNS OR HAS EASEMENT RIGHTS ON ALL PROPERTY ON WHICH THIS PROJECT WILL BE LOCATED OR ON WHICH RELATED CONSTRUCTION WILL OCCUR** (for dams, this includes the area that would be impounded during the design flood).

18. **REMARKS:** This project is limited to removing sediment from three areas of an unnamed tributary to Strodes Creek. Attempts will be made to perform this work during low flow periods to minimize turbidity. Impacts to the stream are temporary and will result in the removal of contaminants (in this case, arsenic) from the waterbody. Therefore, long-term water quality improvement is anticipated.

I hereby request approval for construction across or along a stream as described in this application and any accompanying documents. To the best of my knowledge, all the information provided is true and correct.

Paul J Kuzanski

SIGNATURE: _____

Owner or Agent sign here. (If signed by Agent, a Power of Attorney should be attached.)

DATE: July 27, 2009

SIGNATURE OF LOCAL FLOODPLAIN COORDINATOR:

_____

Permit application will be returned to applicant if not properly endorsed by the local floodplain coordinator.

DATE: 8/3/09

SUBMIT APPLICATION AND ATTACHMENTS TO:

Floodplain Management Section
Division of Water
14 Reilly Road
Frankfort, KY 40601

Supplemental Text for
Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Division of Water

Application For Permit To Construct Across Or Along A Stream And/Or Water Quality Certification

4. Description of Construction:

CSX Transportation is in the preliminary stages of performing a remedial action on the Kentucky Wood Preserving Site (Site), located at 200 Magnolia Street, Winchester, Kentucky. Surface water and sediment sampling were conducted along an unnamed tributary of Strodes Creek, a perennial stream that is located between the railroad corridor and Magnolia Street. A total of 27 samples were collected from this stream, between May 2008 and April 2009, and were analyzed for heavy metals (arsenic, chromium, and copper). These metals were analyzed based on current U.S. Environmental Protection Agency (EPA) and Kentucky Department of Environmental Protection (KDEP) protocol. As a result, three sample locations revealed arsenic levels above KDEP's apparent effects threshold (57 mg/kg). Concurrent with the surface water and sediment sampling, EnviroScience, Inc. performed an ecological assessment to evaluate potential impacts of Site activities on biota of receiving waterbodies (EnviroScience, 2008). As a result of this assessment, biological communities within the stream are representative of a degraded stream system, which could be attributed to Site activities, upstream conditions from other urban-related sources, or both. It is important to note that biological sampling conducted significantly up- and downstream of the Site also indicated degraded conditions. However, KDEP is requiring that clean-up be performed on three sample locations along the stream mentioned above.

To address the three sample locations where arsenic values exceeded the acceptable concentration threshold for sediment in the stream, the project proposes to remove the sediment via a modified form of hydraulic dredging. The clean-up reaches are identified on the attached figure (Figure 3). The three reaches include KWPS-11, KWPS-15, and KWPS-17. KWPS-11 is located at the footprint of Magnolia Street Bridge. KWPS-15 is located within a relatively undisturbed area of riparian buffer, west of the open field. KWPS-17 is located just upstream of the confluence of Stream 1 and a smaller, unnamed tributary that originates from the west.

Sediment will be removed from the base of the stream and not the banks. The general scope of the removal action for the three locations is described below:

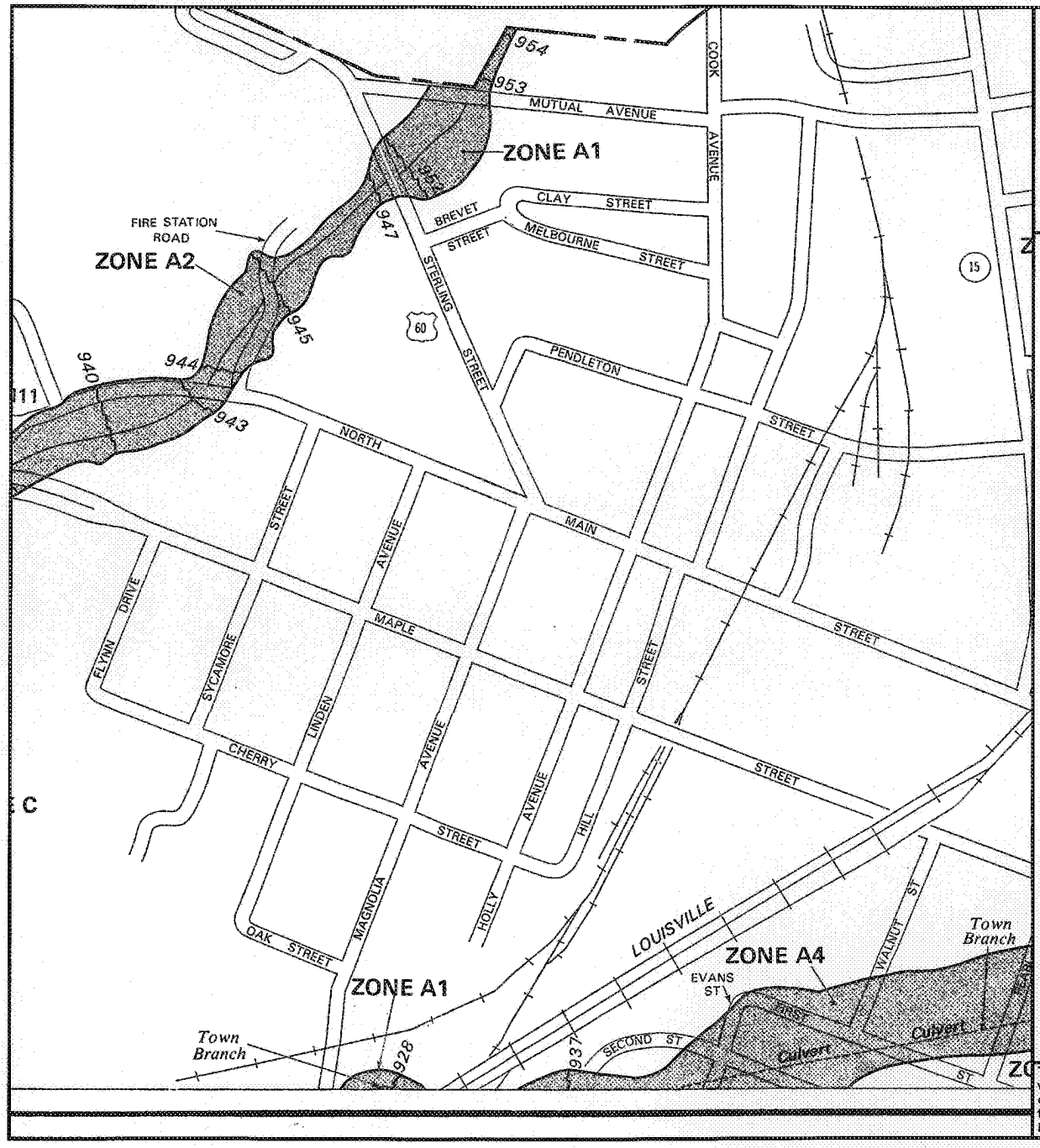
1. AT KWPS-11, sediment will be removed from 10 feet upstream of the Magnolia Street bridge to 10 feet downstream of the bridge to include sediment beneath the bridge.
2. Sediment will be removed 10 feet upstream and downstream from the KWPS15 sample location for a total removal of sediments from 20 feet of the tributary.
3. At KWPS-17, sediment removal will occur at the confluence of the ditch and tributary and downstream for approximately 15 feet.

Access to the stream may require minimal buffer disturbance, but no permanent impacts to the stream banks or channel are proposed. The contractor will attempt to perform the work during a dry period, to minimize channel disturbance. In order to remove the sediment, water will be pumped from the tributary through a flexible hose in close association with the tributary sediment. The sediment collection hose will be manually swept over the tributary bottom to remove sediment. The resultant water and air velocity will uplift and carry sediments from the tributary bottom through the hose into a vacuum box. When the box fills with sediment and water, the vacuum will be released and the sediments will be allowed to settle. The clarified stream water will be decanted through a bag filter and then allowed to discharge back into the tributary. Hardware wire will cover the inlet of the collection hose to exclude cobbles and gravel from the collected sediment.

The filtered water will be discharged onto plastic sheeting in such a way that the water will flow over the plastic through a secondary filtration device (e.g., fiber roll or hay bales) to remove any residual fines that may pass through the bag filter. The use of plastic sheeting will mitigate tributary bank erosion as the water returns to the tributary.

This is an efficient method for sediment removal that minimizes unintended impacts to the tributary. The riparian zone and the banks of the tributary will not be adversely affected using this approach. However, a temporary increase in turbidity may result from the removal action.

The effectiveness of the approach will be assessed by collecting three samples of the coarse material remaining within each treatment area. One sample will be collected from the upstream one third of the treatment area, one from the middle third of the area, and one from the downstream one third of the area. The samples will be analyzed for arsenic, chromium, and copper.



APPROXIMATE SCALE

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

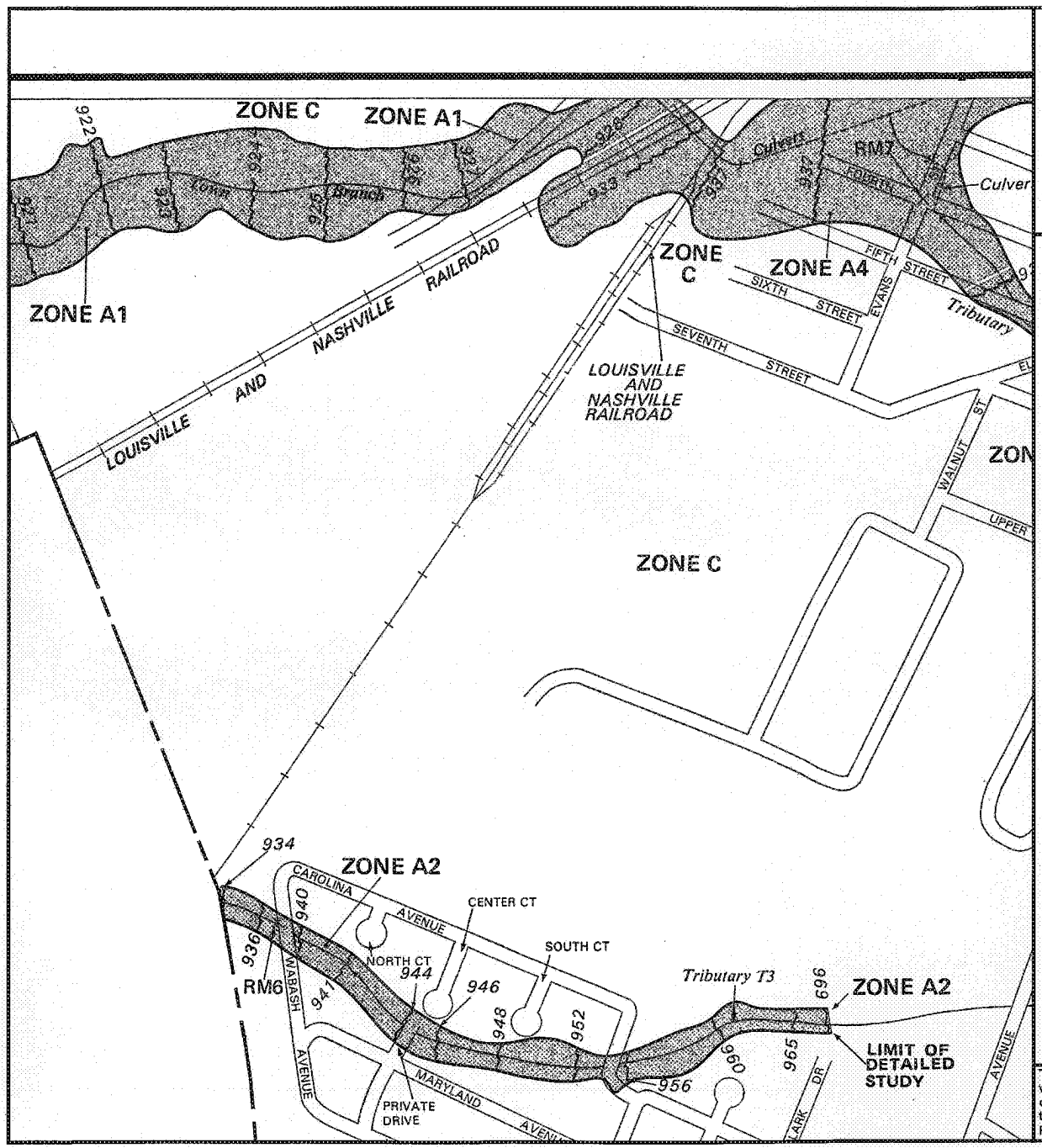
CITY OF
WINCHESTER,
KENTUCKY
CLARK COUNTY

PANEL 1 OF 2

COMMUNITY-PANEL NUMBER
210056 0001 B

EFFECTIVE DATE:
JULY 3, 1986

Federal Emergency Management Agency



APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

CITY OF
WINCHESTER,
KENTUCKY
CLARK COUNTY

PANEL 2 OF 2

COMMUNITY-PANEL NUMBER
210056 0002 B

EFFECTIVE DATE:
JULY 3, 1986

Federal Emergency Management Agency

Geosyntec consultants

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Kennesaw, Georgia 30144
PH 678.202.9500
FAX 678.202.9501
www.geosyntec.com

July 28, 2009

Mr. Gary Epperson
Local Floodplain Coordinator
Clark County
34 South Main Street
Winchester, KY 40391

Re: Review and Signature Request
Application For Permit To Construct Across Or Along A Stream
CSX Transportation – Winchester, Kentucky Wood Preserving Site
Clark County, Kentucky

Dear Mr. Epperson

Geosyntec Consultants, Inc. (Geosyntec), on behalf of the applicant CSX Transportation, is pleased to provide you with the attached Application For Permit To Construct Across Or Along A Stream in association with a sediment removal project in Winchester, Kentucky. Project activities are limited to the temporary disturbance of 65 linear feet of an unnamed stream. A detailed project description is also enclosed, along with the appropriate figures. Per the permit requirements, Geosyntec respectfully requests your review and signature of the attached document.

Geosyntec appreciates the opportunity to work with you on this project. Should you have any questions, need any additional information, or should you request a site visit, please do not hesitate to contact me at (678) 202-9578 or Duane Graves at (865) 291-4693. Thank you for your assistance with this project.

Best Regards,

J. Andrew Whorton
Project Ecologist

Attachments: Application For Permit To Construct Across Or Along A Stream
Supplemental Project Description Text
Figure 1: Site Location Map
Figure 2: Site Topographic Map
Figure 3: Sediment Removal Areas
FEMA Flood Insurance Rate Maps